

IN THE CLAIMS

Please amend the claims as follows:

Claims 1-9 (Canceled).

Claim 10 (Currently Amended): A process for carrying out an exothermic chemical equilibrium reaction in a fluidized-bed reactor comprising a fluidized bed and a gas distributor, wherein there is a temperature distribution along the flow direction in the fluidized bed of the fluidized-bed reactor and the temperature difference between the lowest temperature and the highest temperature is at least 10 K and wherein the temperature within the fluidized bed decreases from an absolute temperature maximum along the flow direction to the surface of the fluidized bed and to the gas distributor, and

wherein the distance between the absolute temperature maximum and the gas distributor is smaller than the distance between the absolute temperature maximum and the surface of the fluidized bed.

Claims 11-12 (Canceled).

Claim 13 (Previously Presented): The process according to claim 10, wherein the temperature of the reaction gases fed to the fluidized-bed reactor is below the lowest temperature occurring in the fluidized bed.

Claim 14 (Previously Presented): The process according to claim 10, wherein the temperature distribution is produced by heat transfer to at least one heat exchanger within the fluidized bed.

Claim 15 (Previously Presented): The process according to claim 10, wherein the chemical reaction is the preparation of chlorine from hydrogen chloride and oxygen.

Claim 16 (Previously Presented): The process according to claim 10, wherein the fluidized bed comprises a catalyst which comprises a metal component on an oxidic support.

Claim 17 (Previously Presented): The process according to claim 16, wherein the catalyst comprises a ruthenium compound.

Claim 18 (Withdrawn): A fluidized-bed reactor for carrying out the process according to claim 10 in a fluidized bed into which reaction gases are fed via a gas distributor, wherein at least one heat exchanger is located in the fluidized bed to control the temperature distribution within the fluidized bed and wherein the distance between the gas distributor and the nearest heat exchanger is at least 50 cm.

Claim 19 (Previously Presented): The process according to claim 10, wherein the fluidized bed is divided into two temperature zones.

Claim 20 (Currently Amended): The process according to claim 10, wherein ~~the fluidized-bed reactor contains a gas distributor and~~ the temperature distribution is produced by heat transfer to at least one heat exchanger within the fluidized bed, and the distance between the gas distributor and the nearest heat exchanger above the gas distributor is at least 25 cm.

Claim 21 (Previously Presented): The process according to claim 20, wherein the distance is at least 50 cm.

Claim 22 (Previously Presented): The process according to claim 10, wherein the fluidized-bed reactor is designed as a bubble-forming fluidized bed having a superficial gas velocity of from 0.01 to 1 m/s.

Claim 23 (Previously Presented): The process according to claim 22, wherein the superficial gas velocity is from 0.5 to 0.50 m/s.

Claim 24 (Previously Presented): The process according to claim 10, wherein a heat exchanger is located in the lower part of the fluidized bed and a heat exchanger is located in the upper part of the fluidized bed.

Claim 25 (Previously Presented): The process according to claim 19, wherein a dividing plate is positioned between the two temperature zones.

Claim 26 (Previously Presented): The process according to claim 25, wherein the dividing plate is configured as a perforated plate having openings in the shape of a truncated cone.